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PTO/SB/21 (08-00)
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<h1>TRANSMITTAL FORM</h1> <p>(to be used for all correspondence after initial filing)</p>		Application Number	09/883,081
		Filing Date	June 15, 2001
		First Named Inventor	Joshua E. Rothenberg, Ph.D.
		Group Art Unit	2882
		Examiner Name	R. Kim
Total Number of Pages in This Submission	10	Attorney Docket Number	60901/P006CP1/10103165

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below) Return Postcard Response to Election of Species Requirement
Remarks		

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual Name	FULBRIGHT & JAWORSKI L.L.P. Jerry L. Mahurin
Signature	
Date	February 26, 2003

Transmittal	
I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV259595852US, in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date shown below.	
Dated: February 26, 2003	Signature: (Jerry L. Mahurin)

FEB 26 2003

PTO/SB/17 (01-03)

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FEE TRANSMITTAL for FY 2003

Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 205.00

Complete if Known

Application Number 09/883,081
Filing Date June 15, 2001
First Named Inventor Joshua E. Rothenberg, Ph.D.
Examiner Name R. Kim
Group Art Unit 2882
Attorney Docket No. 60901/P006CP1/10103165

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account

Deposit Account Number

06-2380

Deposit Account Name

Fulbright & Jaworski L.L.P.

The Commissioner is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) during the pendency of this application

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)					0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
69	-69** =		0.00
4	-4** =		0.00
Multiple Dependent			

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	84	2201	42	Independent claims in excess of 3	
1203	280	2203	140	Multiple dependent claim, if not paid	
1204	84	2204	42	** Reissue independent claims over original patent	
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)					0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	205.00
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant Issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 205.00

SUBMITTED BY

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Registration No. (Attorney/Agent)

34,661

Complete (if applicable)

Telephone (214) 855-8386

Signature

Date

February 26, 2003

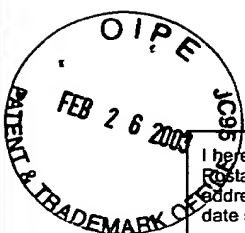
Fee Transmittal

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Dated: February 26, 2003

Signature:

(Jerry L. Mahurin)



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Dated: February 26, 2003

Signature:

(Jerry L. Mahurin)

Docket No.: 60901/P006CP1/10103165

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Joshua E. Rothenberg, Ph.D., et al

Application No.: 09/883,081

Group Art Unit: 2882

Filed: June 15, 2001

Examiner: R. Kim

For: LITHOGRAPHIC FABRICATION OF PHASE
MASK FOR FIBER BRAGG GRATINGS

12/ Elate
G. Stenly
3-6-03

RESPONSE TO ELECTION OF SPECIES REQUIREMENT

Commissioner for Patents
Washington, DC 20231

Dear Sir:

I. Provisional Election of Species

In response to the Election Requirement mailed November 26, 2002, Applicants hereby provisionally elect the species of Group 1 corresponding to FIGURES 2 and 3 which includes claim 1 through 23. Applicants respectfully submit that claims 1 and 13 are generic to at least claims 1 through 16 and to the species of Groups 1-4. Regardless, Applicants respectfully traverse the Election Requirement for the reasons provided below. This Election is accompanied by the necessary two-month Petition for an Extension of Time and the requisite Fee.

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II. Election of Species Requirement Improper**A. The Election Requirement is Silent as to the Presence of a Generic Claim**

M.P.E.P. 809.02(a) requires that the Election Requirement identify generic claims or indicate that no generic claims are present. The present Election requirement fails to provide any discussion of generic claims. Therefore, at least for this reason the Election Requirement is improper.

B. Claims Restricted to Species Must be Mutually Exclusive

Applicants respectfully point out that “[c]laims to be restricted to different species must be mutually exclusive,” M.P.E.P. § 806.04(f). Accordingly, the general test for when claims may be restricted to different species is when one claim recites limitations which are found in a first species but not in a second, and a second claim recites limitations which are found in a second species but not in the first. “This is frequently expressed by saying that claims to be restricted to different species must recite the mutually exclusive characteristics of such species,” M.P.E.P. § 806.04(f). However, the various species identified in the requirement for election are not mutually exclusive.

Independent claims 1, 13, 24 and 53 include similar limitations. For example, independent claim 1 identified above as reading on the species of Group 1, and independent claim 24 which reads on the species of Groups 3 or 4, each recite “wherein at least one first optical region of the plurality of first optical regions includes at least one predetermined irregularity on at least one edge.” Similarly, claim 13 identified above as reading on the special of Group 1, recites “wherein at least one bar includes at least one predetermined irregularity on at least one edge.” Also, claim 53 which reads on the species of Groups 3 or 4 recites “providing at least one predetermined irregularity on at least one edge of at least one first optical region of the plurality of first optical regions.”

The specification clearly teaches that “The invention preferably ‘feathers’ the pixels of the mask lines by adding, removing, and/or displacing one or more pixels,” page 6, line 7. Accordingly, it is clear that the “at least one predetermined irregularity on at least one edge” of independent claims 1, 13, 24 and 53 may be incorporated into an optical device (FIGURE 2) including a mask employing cyclic movement (FIGURE 4). Furthermore as provided by

the specification at page 16, line 19, and at page 17, line 13, a phase mask constructed incorporating "at least one predetermined irregularity on at least one edge" may be used in a system to record a Fiber Bragg Grating (FBG) onto the core of an optical fiber, such as the systems of FIGURES 5 and 6 and as recited in claims 24 and 53.

M.P.E.P. §806.04(e) provides that "Species are *usually* but not always independent as disclosed...since there is usually no disclosure of relationship therebetween." However, in the present case a relationship does exist, as has been shown above. M.P.E.P. §806.04(e) further provides "The fact that a genus for two different embodiments is capable of being conceived and defined, does not affect the independence of the embodiments, where the case under consideration contains no disclosure of any commonality of operation, function or effect." In the present case, all the embodiments (and independent claims) contain at least one commonality of operation, function and/or effect, namely the limitation "at least one predetermined irregularity on at least one edge".

From the above, it is clear that the inventions of the claims identifiable with each of the identifiable species of Group 1, Group 2, Group 3 and Group 4 cannot be restricted as species as set forth in the requirement for election as they are not mutually exclusive of one another.

C. The Disclosed Relation Between the Species Identified in the Requirement for Election Has Not Been Addressed to Establish the Propriety of Restriction

"[W]here there is a relationship disclosed between species, such disclosed relation must be discussed and reasons advanced leading to the conclusion that the disclosed relation does not prevent restriction, in order to establish the propriety of restriction," M.P.E.P. § 808.01(a). Each of the species identified in the requirement for election are taught to be related in the accompanying specification.

For example, as provided by the specification "Whether the phase of the bar-space pattern is varied continuously or in a discrete fashion, the feathering technique allows the attainment of ~ pm resolution for the effective relative positions of the bars without varying the magnification scale factor and/or re-registering the lithography stage position," page 14, line 1. Therefore, it is clear that the specification teaches that the cyclic movement of pixels (FIGURE 4) fully incorporates the commonly claimed "at least one predetermined

irregularity on at least one edge" discussed above. Furthermore, as noted above, on both page 16, at line 19, and page 17, at line 13, the systems to record an FBG in the core of a fiber of FIGURES 5 and 6 are noted as employing a phase mask "constructed as described above". Accordingly, there is clearly a relationship disclosed between the species of Group 1, Group 2, Group 3, and Group 4. Moreover, as discussed above, each of the independent claims recite "at least one predetermined irregularity on at least one edge."

"Where inventions as disclosed and claimed are both (A) species under a claimed genus and (B) related, then the question of restriction must be determined by both the practice applicable to election of species and the practice applicable to other types of restrictions such as those covered in M.P.E.P. § 806.05 - § 806.05(i)," M.P.E.P. § 806.04(b) (emphasis added). Applicants respectfully assert that the Examiner has not properly established an election requirement under the practice applicable to election of species as the disclosed relation between the species has not been discussed and reasons leading to the conclusion that the disclosed relation does not prevent restriction have not been given as required under M.P.E.P. § 808.01(a). Applicants further assert that the Examiner has not properly established an election requirement under the practice applicable to election of species as the practice applicable to other types of restrictions has not been applied as required under M.P.E.P. § 806.04(b). For example, the Examiner has not addressed the second of the two criteria for proper requirement for restriction (that there must be a serious burden on the Examiner if restriction is required), see M.P.E.P. § 803.

III. Conclusion

Applicant's provisional election is made without prejudice. As provided by the M.P.E.P., upon the allowance of a generic claim, Applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.146.

An action on the merits of all the claims and a Notice of Allowance thereof are respectfully requested. The Examiner is invited to call the below listed attorney if he can be of any assistance in advancing prosecution of this Application.

Application No.: 09/883,081

Docket No.: 60901/P006CP1/10103165

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 60901/P006CP1/10103165 from which the undersigned is authorized to draw.

Dated: February 26, 2003

Respectfully submitted,

By 

Jerry L. Mahurin

Registration No.: 34,661

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